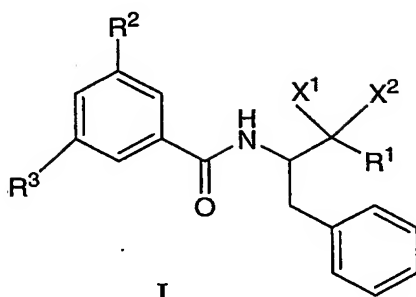


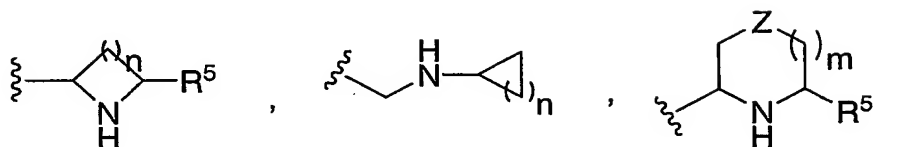
WHAT IS CLAIMED IS:

1. A compound of the formula I:



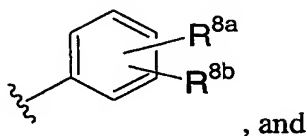
wherein:

R¹ is selected from the group consisting of:

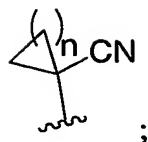


R² is selected from the group consisting of:

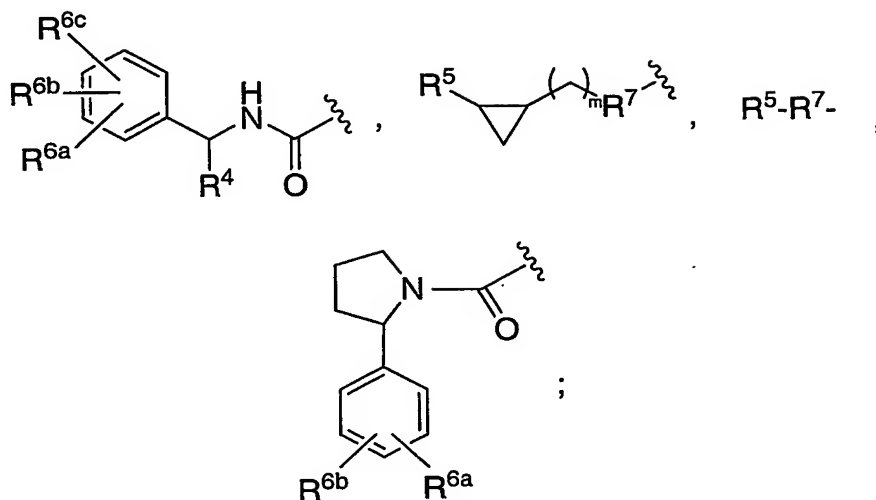
- (1) R⁴-S(O)_m-NR⁵-,
- (2) R⁴-S(O)_m-,
- (3) R⁴NHCO-,
- (4) R⁴CONH-,
- (5) R⁴R⁵N-,
- (6) nitrile,
- (7) NC- C₁₋₆alkyl-,
- (8) halogen,
- (9)



(10)



R³ is selected from the group consisting of:



5

R⁴ is selected from the group consisting of:

- (1) hydrogen,
- (2) C₁₋₆alkyl,
- (3) phenyl, and
- (4) benzyl;

10

R⁵ is independently selected from the group consisting of:

- (1) hydrogen;
- (2) C₁₋₆alkyl,
- (3) phenyl,
- (4) benzyl, and

15

R^{6a}, R^{6b}, and R^{6c} are independently selected from the group consisting of:

- (1) hydrogen,

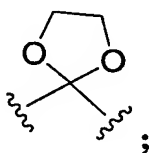
20

- (2) halogen,
- (3) $-OR^5$,
- (4) $-SR^5$, and
- (5) C_{1-6} alkyl;

5

R^7 is selected from the group consisting of $-C=C-$, O, S, and NH;

Z is selected from the group consisting of CO, CH-OH, CH-F and



10 R^{8a} and R^{8b} are independently selected from the group consisting of:

- (1) nitrile
- (2) hydrogen,
- (3) halogen,
- (4) $-OR^5$,
- (5) $-SR^5$,
- (6) C_{1-6} alkyl,
- (7) $-CO_2R^5$, and
- (8) tetrazolyl;

15

20 X^1 is hydrogen and X^2 is hydroxyl, or X^1 and X^2 together form oxo;

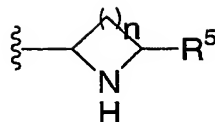
n is independently 1, 2, 3, or 4;

m is independently 0, 1, or 2;

and pharmaceutically acceptable salts thereof.

25

- 2. The compound of Claim 1 wherein X^1 and X^2 together form oxo.
- 3. The compound of Claim 1 wherein X^1 is hydrogen and X^2 is hydroxyl.
- 4. The compound of Claim 1 wherein R^1 is:



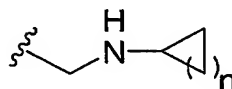
and wherein:

n is 2 or 3; and

R⁵ is hydrogen or methyl;

5 and pharmaceutically acceptable salts thereof.

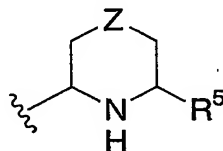
5. The compound of Claim 1 wherein R¹ is:



and wherein n is 1, and pharmaceutically acceptable salts thereof.

10

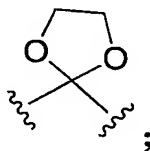
6. The compound of Claim 1 wherein R¹ is:



and wherein:

R⁵ is hydrogen or methyl;

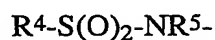
15 Z is selected from the group consisting of CO, CH-OH, and



and pharmaceutically acceptable salts thereof.

7. The compound of Claim 1 wherein R² is:

20



and wherein R⁴ is selected from the group consisting of:

- (1) hydrogen,
- (2) C₁₋₆alkyl,
- (3) phenyl, and
- (4) benzyl;

5

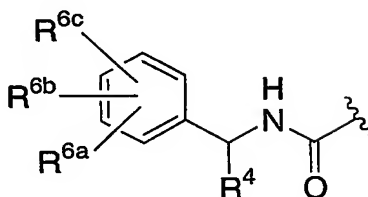
R⁵ is selected from the group consisting of:

- (1) C₁₋₆alkyl,
- (2) phenyl,
- (3) benzyl, and
- (4) hydrogen;

10

and pharmaceutically acceptable salts thereof.

8. The compound of Claim 1 wherein R³ is:



15

and wherein:

R⁴ is methyl;

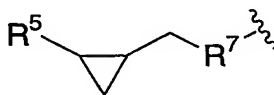
R^{6a} is H or F;

R^{6b} and R^{6c} are hydrogen;

20

and pharmaceutically acceptable salts thereof.

9. The compound of Claim 1 wherein R³ is:



25

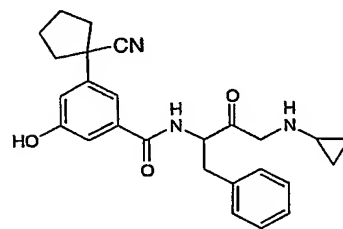
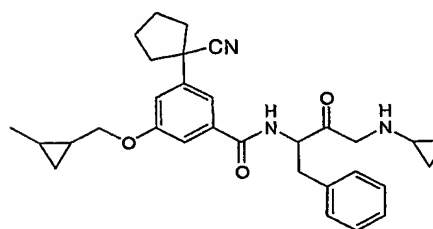
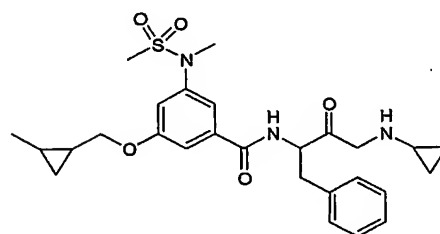
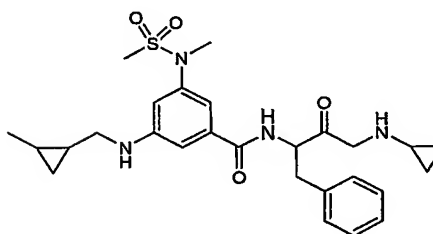
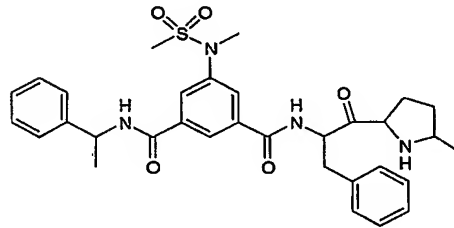
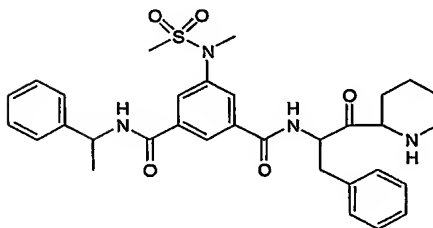
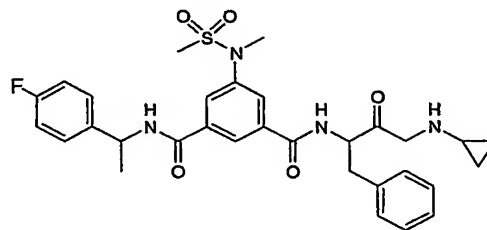
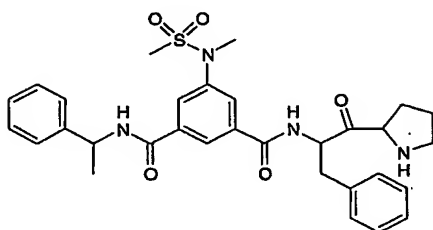
wherein:

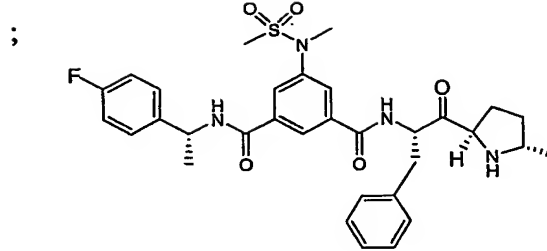
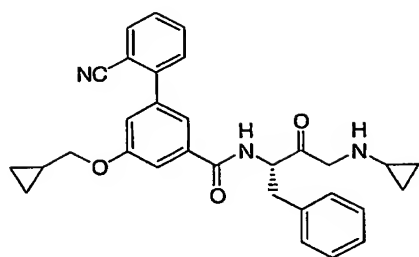
R⁵ is methyl;

R⁷ is O or NH;

and pharmaceutically acceptable salts thereof.

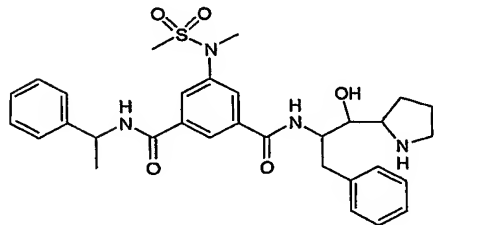
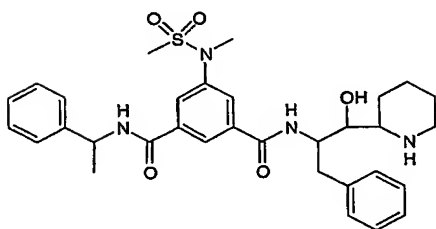
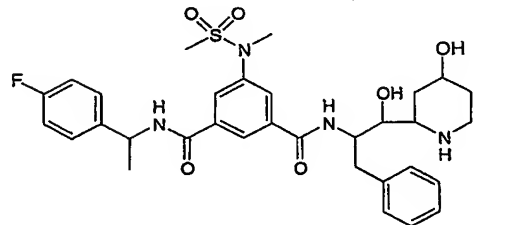
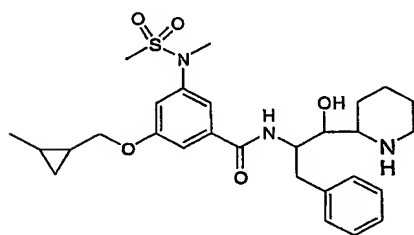
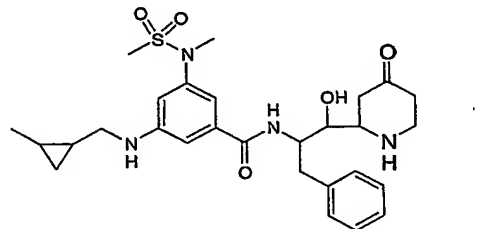
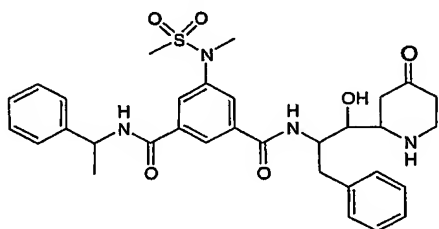
10. The compound of Claim 2 which is selected from the group consisting of:

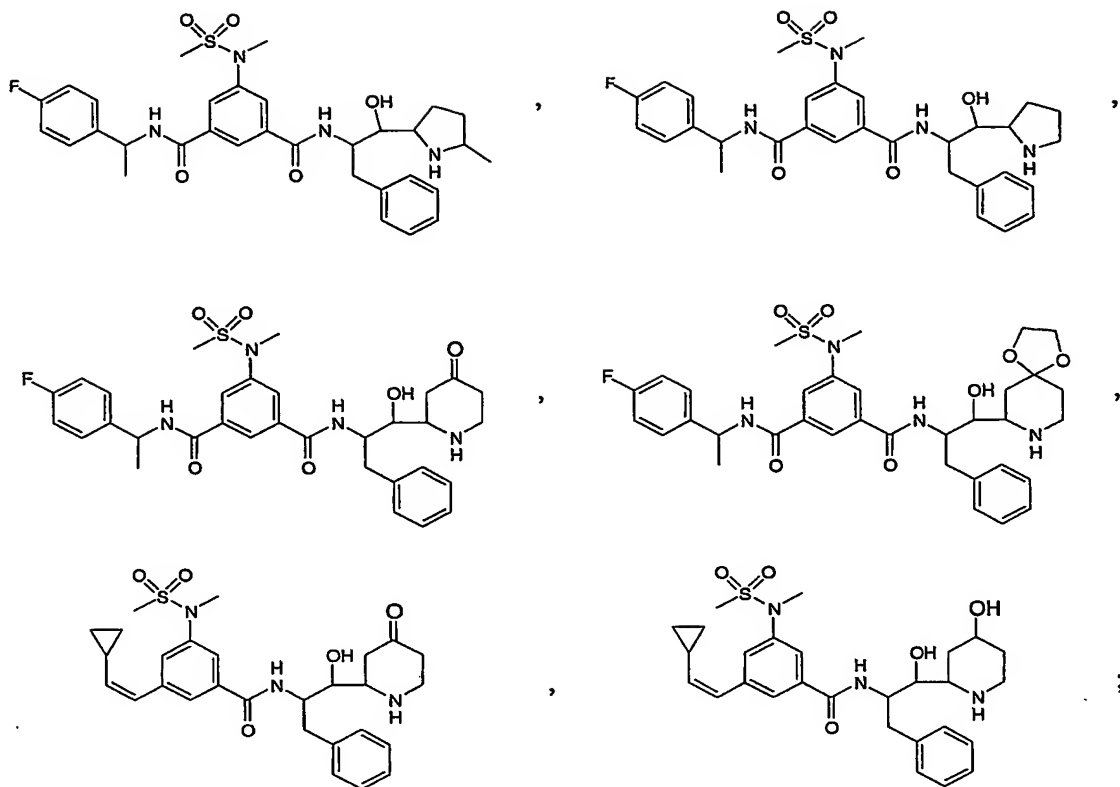




and pharmaceutically acceptable salts thereof.

11. The compound of Claim 3 which is selected from the group consisting of:





and pharmaceutically acceptable salts thereof.

12. A compound of Claim 1 in substantially diastereomerically pure form.

5

13. A substantially diastereomerically pure compound of Claim 1 in substantially enantiomerically pure form.

14. A pharmaceutical composition comprising a therapeutically effective amount of a
10 compound of Claim 1 and a pharmaceutically acceptable carrier.

15. A method for inhibition of β -secretase activity in a mammal which comprises administering to the mammal in need thereof a therapeutically effective amount of a compound of Claim 1.

15

16. A method for the manufacture of a medicament for inhibition of β -secretase activity in a mammal comprising combining a compound of Claim 1 with a pharmaceutical carrier or diluent.

5 17. A method for treating, preventing, controlling, ameliorating or reducing the risk of Alzheimers disease in a patient comprising the administration to the patient of a therapeutically effective amount of a compound of Claim 1.